

Work Order ID 128917

128917

Page 1

Tuesday, January 27, 2015 7:54:11 AM

Item ID: D2970-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Wearplate Center
 Start Date: 1/26/15 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 1/26/15 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan: MLS Date: 1501-29 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2970	C								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D2970								
304.040	Dwg Rev: <u>C</u>								
	Prog Rev: <u>C</u>								
	2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									

12 0 Jm15-2-10
12 0 Jm15-2-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

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Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐	Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐			

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Design									
Doc/Data									
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Revision ID: Stop ***NS2***
Item Name: Wearplate Center
Start Date: 1/26/15 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 1/26/15 Req'd Qty: 2.00 ***2*** Customer:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

ML5 15-02-26

AS.2-26

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Picklist Print

Tuesday, January 27, 2015 7:54:11 AM

Page 1

Work Order ID: 128917

128917

Parent Item: D2970-3

D2970-3

Parent Item Name: Wearplate Center

Start Date: 1/26/15

Required Date: 1/26/15

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP: B01.06.07Added Material and Tool number SM/EC
IPP C 08.09.03 Waterjet EC verified: DD IPP REV:D
14.02.05 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S20GA		Purchased			No		sf	191.5487					
-----------	--	-----------	--	--	----	--	----	----------	--	--	--	--	--

M304S20GA

**

18

Jm 15-2-10

304/316 .040 Sheet

Location

Loc Qty

Loc Code

MAT020

191.5487

m130345

1.5139

m131060

190.0348

131060

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Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

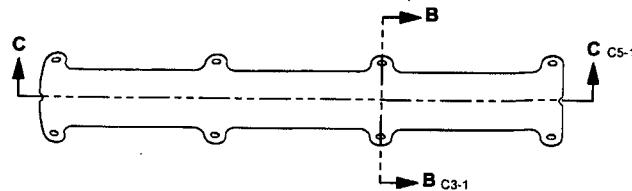
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

FIRST ARTICLE INSPECTION CHECKLIST

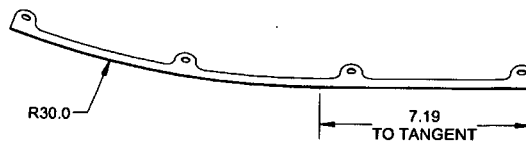
~~DAS~~

32

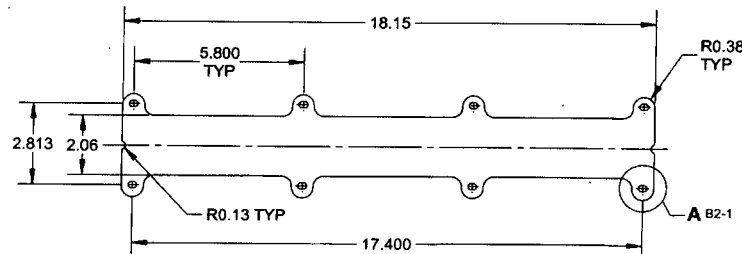
9-89



D2970-1 BEND DETAIL
MAKE FROM D2970-1F



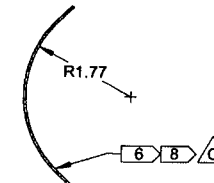
SECTION C-C D4-1



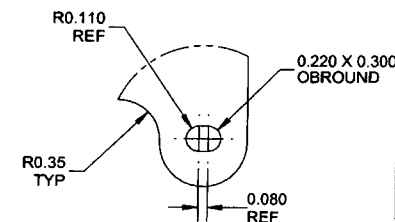
D2970-1F FLAT PATTERN

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
20 GAUGE (0.040 THICK), REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH P/N D2970-1 AND B/N AS PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.47 lbs
- 8) COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 4.9



SECTION B-B D5-1
SCALE:2X



DETAIL A B4-1

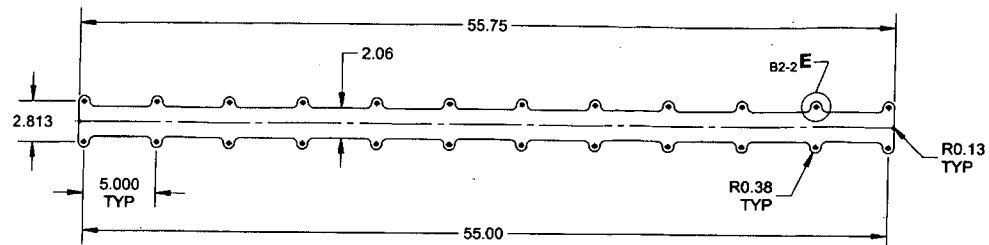
C	CHANGE NOTE 8 (ZN A4-1/2); ADD FLAG (ZN D2-1/2). REF NCR:13-3168	SFM	13.10.25
B	FORMAT TO CURRENT STANDARD, AISI 304/316SS WAS AISI 1010-1025, REMOVE FINISH NOTE, ADD NOTE 8, ROCKGUARD COATING (ZN A8-1, ZN A8-2), REF CIR 12-13	DB	12.12.14
A	NEW ISSUE	RF	00.03.10
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	SFM		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.10.25		

DART AEROSPACE USA, INC.	
KENT, WA	
DRAWING NO. D2970	REV. C SHEET 1 OF 2
TITLE WEARPLATE	SCALE NTS
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128917
ML5
1501-29

RELEASED
2014-02-03

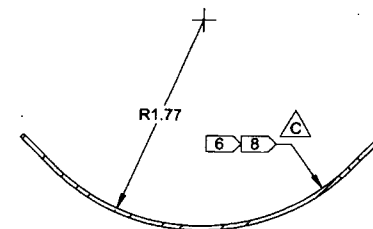
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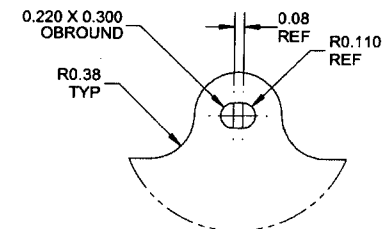
D2970-3F FLAT PATTERN



D2970-3 BEND DETAIL
MAKE FROM D2970-3F



SECTION D-D B5-2
SCALE 8X



DETAIL E D5-2

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524
OR ASTM A240 OR ASME SA240
20 GAUGE (0.040 THICK), REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH P/N D2970-3 AND B/N AS PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 1.38 lbs
- 8) COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 4.9



RELEASED
2014-02-03

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SHM		
CHECKED		DRAWING NO. D2970	REV. C
MFG. APPR.		TITLE	SHEET 2 OF 2
APPROVED		WEARPLATE	SCALE
DE APPR.			NTS
DATE	13.10.25	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1